



SERVICE INFORMATION LETTER

AVOX Systems Inc. (Formerly Scott Aviation, Inc.)
225 Erie Street • Lancaster, NY 14086-9502 • USA
Tel: 716-683-5100 • Fax: 716-681-1089 • Web Site: www.avoxsys.com

OXYGEN - ATA CHAPTER 35

VENDOR CODE: 53655

TEST DATA SHEET FOR P/N 800801 Series Pneumatic Flow Control Unit

1. BACKGROUND

- A. This SIL provides a standardized form on which to record the results of the required functional tests in Overhaul Manual 35-21-52 that must be passed in order to return a unit to service. This SIL corrects a typographical error in the Cover Subassembly Leak Test given in the Overhaul Manual. This SIL also revises a paragraph in the Assembly section of the manual to make final setup and testing easier to perform. The form, the typographical error correction, and the paragraph revision will be incorporated into the Overhaul Manual at the next revision.
- B. You are authorized to copy the form on pages 3 and 4. If you copy the form on pages 3 and 4, you must copy all of the form.
- C. Use this form only for the AVOX Systems component printed on the form. Do not use this form for any other AVOX Systems components or for any components of another company.

2. EFFECTIVITY

- A. Aircraft
The Test Data Sheets on pages 3 and 4 can be used for all units whether removed from any aircraft or from spares inventory.
- B. This SIL applies to P/N 800801 Series Pneumatic Flow Control Units only.

3. MATERIALS

The only material required by this SIL and not found in Overhaul Manual 35-21-52, is the Test Data Sheets on pages 3 and 4.

4. ACCOMPLISHMENT OF SIL

- A. Make complete copies of the Test Data Sheets on pages 3 and 4.
- B. Use a copy of the Test Data Sheets from pages 3 and 4 to record the results of tests whenever a P/N 800801 Series Pneumatic Flow Control Unit is tested.
- C. Before performing any of the testing procedures in this SIL or Overhaul Manual 35-21-52, understand and heed the following warnings.

WARNING: FAILURE TO USE ONLY PURE, TEST GAS (NOT OIL PUMPED) MAY CAUSE AN EXPLOSION OR FIRE RESULTING IN SERIOUS PERSONAL INJURY OR DEATH.

- D. Oxygen contaminated with oil can ignite with explosive force. Do not, under any circumstances use oil pumped test gas. Even a minute quantity of oil will cause contamination of the Flow Control Unit and test equipment.

WARNING: FAILURE TO FULLY DISCHARGE THE OXYGEN FROM THE FLOW CONTROL UNIT, COMPONENT PARTS, OR TEST SETUP PRIOR TO DISASSEMBLY OF ANY PART MAY CAUSE SERIOUS PERSONAL INJURY OR DEATH.



4. ACCOMPLISHMENT OF SIL (CONTINUED)

- E. High pressure oxygen is a hazardous material. When pressurized oxygen is discharged intentionally or due to equipment failure, the released energy can be highly destructive if not properly controlled. Fully discharge the oxygen from the Flow Control Unit, component parts, and test setup prior to disassembly of any part.

WARNING: FAILURE TO REFER TO AND FOLLOW APPLICABLE MANUFACTURER'S OR SUPPLIER'S MATERIAL SAFETY DATA SHEET (MSDS) BEFORE USING CONSUMABLE TEST MATERIALS SPECIFIED IN THIS MANUAL, MAY RESULT IN SERIOUS PERSONAL INJURY, ILLNESS, OR DEATH.

- F. Some consumable test materials used in this manual may be hazardous under certain conditions. Material Safety Data Sheets provide information on chemical makeup, properties, and precautions for handling potentially hazardous substances which may affect health risks, storage, disposal, and other workplace safety factors.

WARNING: FAILURE TO USE EYE PROTECTION AT ALL TIMES DURING TESTING AND OTHER SERVICE PROCEDURES MAY CAUSE INJURY TO THE EYES.

- G. Use eye protection at all times during testing and other service procedures.
- H. Use Overhaul Manual 35-21-52 and this SIL to perform steps 4.J. and 4.K. below.
- J. Correct the typographical omission of Step 6.C.(2) of the Cover Leak Test in the Assembly section of the manual.
- (1) Immediately following paragraph 6.C.(1) and immediately before paragraph 6.C.(3), add paragraph 6.C.(2). Paragraph 6.C.(2) shall read: "Apply 15 psi to test port."
- K. Revise paragraph 6.AO.(6) in the Assembly section of the manual to facilitate final setup and testing of the unit.
- (1) Replace paragraph 6.AO.(6) with the following:
- Close valves (C) and (AA) figure 603. Attach a flow meter to connection (A) and adjust screw (83, IPL figure 1) for an indication of 2.5 lpm on flow meter. Open valve (AA) figure 603, close valve (F) and remove flow meter from connection (A).

5. TO CONTACT AVOX SYSTEMS:

Use the contact information below to get a copy of an Overhaul Manual or the revision status of a publication. Give the AVOX Systems part number and the aircraft model when you request an Overhaul Manual copy.

First tier operators:

IN-Services Europe (HQ)
Yann Lainé
7, Avenue du Parana
B. P. 303
91958 Courtaboeuf Cedex
France

Telephone: +33-1-64-86-69-64
Fax: +33-1-64-86-69-84
E-mail: ylaine@intertechnique.zodiac.com
Website: www.in-services.com

Second tier operators:

AVOX Systems
Technical Publications
225 Erie Street
Lancaster, NY
14086-9502
USA
716-683-5100
716-681-1089
avoxtechpub@avox.zodiac.com
www.avoxsys.com



OVERHAUL MANUAL 35-21-52
TEST DATA SHEET A
800801 Series Pneumatic Flow Control Unit

Tested by: _____

Date: _____

Part Number: 800801- _____

Inspected by: _____

Date: _____

Serial Number: _____

Refer to the Inspection/Check, Testing, and Trouble Shooting sections of OVERHAUL MANUAL 35-21-52.**4. Inspection/Check**

Refer to the Inspection/Check section and inspect the assembly and components for evidence of external damage, scoring, thread damage, and overall condition. Verify no evidence of deterioration to elastomer components. Verify any parts that are no longer serviceable have been replaced.

☐ FAILPASS ☐**8.A. Relief Valve Assembly Tests****(1) Cracking Pressure Test**

Cracking Pressure
140 ± 10 psig

☐ FAIL PASS ☐**8.A. Relief Valve Assembly Tests****(2) Flow Test**

flow
(lpm)

Observed Pressure
170 psig MAX

1270

☐ FAIL PASS ☐**8.A. Outlet Assembly Test Procedures****(3) Reseat Pressure Test**

Minimum Inlet
Pressure (psig)

10 cc/min
Allowed MAX

100

☐ FAIL PASS ☐**8.C. Assembled Control Unit Test Procedures****(1) External Leakage Test**

Perform an external leakage test.

Inlet Pressure
(psig)

Outlet Pressure
(psig)

Duration
(minutes)

10 cc/min
Allowed MAX

2000

65

5.0

☐ FAIL PASS ☐**8.C. Assembled Control Unit Test Procedures****(2) Internal Leakage Test**

Perform an internal leakage test.

Inlet Pressure
(psig)

5 cc/min
Allowed MAX

2000

☐ FAIL PASS ☐

NOTE: FLOWS ARE GIVEN FOR OXYGEN TEST GAS @ NTPD.

APPLY THE APPROPRIATE CORRECTION FACTOR IF ANOTHER MEDIUM IS USED.



OVERHAUL MANUAL 35-21-52
TEST DATA SHEET B
800801 Series Pneumatic Flow Control Unit

Tested by: _____

Date: _____

Part Number: 800801- _____

Inspected by: _____

Date: _____

Serial Number: _____

8.C. Assembled Control Unit Test Procedures**(3), (4) Automatic Actuation, Surge, and Manual Reset Test**

Perform actuation, surge, and manual reset tests.

Inlet Pressure (psig)	Configuration	Altitude Actuation			Surge to 50 psig 7 Seconds MAX	Surge Duration 8 - 20 Seconds
		Feet	psia			
500	-00, -01, -03	13,250 - 14,500	8.9 - 8.5	☐ FAIL ☐ PASS ☐	☐ FAIL ☐ PASS ☐	☐ FAIL ☐ PASS ☐
500	-02	12,250 - 13,500	9.2 - 8.8	☐ FAIL ☐ PASS ☐	☐ FAIL ☐ PASS ☐	☐ FAIL ☐ PASS ☐
500	-04, -05	14,000 - 15,000	8.63 - 8.3	☐ FAIL ☐ PASS ☐	☐ FAIL ☐ PASS ☐	☐ FAIL ☐ PASS ☐
Manual Reset	☐ FAIL ☐ PASS ☐					

8.C. Assembled Control Unit Test Procedures**(3), (5) Flow/Inlet Pressure Test**

Perform a flow and inlet pressure test.

Inlet Pressure (psig)	Altitude (Feet)	Outlet Flow (lpm)		Allowable Outlet Pressure (psia)	
		Low	High		
500	40,000	25	1270	56.3 - 53.3	☐ FAIL ☐ PASS ☐
	30,000	25	985	43.0 - 40.5	☐ FAIL ☐ PASS ☐
	20,000	25	535	23.6 - 21.7	☐ FAIL ☐ PASS ☐
	14,000	25	200	10.8 - 9.8	☐ FAIL ☐ PASS ☐
100	14,000	20	-	10.8 - 9.8	☐ FAIL ☐ PASS ☐

6. Assembly Procedure**C. Cover Subassembly Leak Test**

Perform a cover leak test.

Inlet Pressure (psig)	No Evident Leakage (Bubbles in the leak test solution indicate leakage)
15 minimum	☐ FAIL ☐ PASS ☐

NOTE: FLOWS ARE GIVEN FOR OXYGEN TEST GAS @ NTPD.

APPLY THE APPROPRIATE CORRECTION FACTOR IF ANOTHER MEDIUM IS USED.